

AMENDMENTS TO THE CLAIMS

1. (previously presented) Tool for handling a wafer in an epitaxial growth station the tool being adapted to be applied to an arm of a robot for the automatic insertion/extraction of wafers into/from the reaction chamber of the station, the arm being provided with a suction duct connected to a suction system, the tool comprising: a disk having an upper side and a lower side, the lower side being so shaped as to get in contact with the wafer only along the edge of the wafer, the disk being provided internally with a suction chamber that is in communication with the outside of the disk through suction holes and that is adapted to be put in communication with the suction duct through a suction port the disk entirely covering the wafer wherein when the wafer is in contact with the lower side of the disk and the suction system is active, the wafer is held by the tool through suction and wherein the disk, on its lower side in its central part, is provided with a suction cavity, and wherein the suction holes are open to the lower side of the disk into the suction cavity.

2. (Cancelled)

3. (previously presented) Tool according to claim 1 wherein the suction port opens to the upper side of the disk.

4. (currently amended) Tool according to claim 1, wherein the disk comprises a shell, having an outline being substantially ring-shaped and a cross-section being substantially U-

shaped, and a lid, being substantially flat and being substantially circle-shaped, joined to the shell in such a way as to form a closed chamber corresponding to the suction chamber and a cavity being substantially cylinder-shaped and corresponding to the suction cavity, and wherein the shell is so shaped as to get in contact with the wafer only along the edge of the wafer.

5. (previously presented) Tool according to claim 4, wherein the suction holes open to the lateral walls of the cylinder-shaped cavity.
6. (previously presented) Tool according to claim 4, wherein the suction holes consist of grooves made on the inner lip of the shell at the border with the lid.
7. (previously presented) Tool according to claim 1, wherein the disk is provided with a plate for applying the tool to the arm of the robot, and wherein the suction port opens to or next to the plate.
8. (previously presented) Tool according to claim 4, wherein the lid is provided with a plate for applying the tool to the arm of the robot, and wherein the suction port opens to or next to the plate.
9. (currently amended) Station for epitaxial growth treatment of wafers, particularly semiconductor material wafers, comprising a reaction chamber, a suction system and a robot for the automatic insertion/extraction of wafers into/from the reaction chamber, the robot being

provided with an arm having a suction duct connected to the suction system, characterized in that it comprises a tool, the tool being adapted to be applied to the arm of a robot for the automatic insertion/extraction of wafers into/from the reaction chamber of the station ~~the arm being provided with a suction duct connected to a suction system~~, comprising: a disk having an upper side and a lower side the lower, side being so shaped as to get in contact with the wafer, only along the edge of the wafer the disk being provided internally with a suction chamber that is in communication with the outside of the disk through suction holes and that is adapted to be put in communication with the suction duct through a suction port, the disk entirely covering the wafer wherein when the wafer is in contact with the lower side of the disk and the suction system is active, the wafer is held by the tool through suction and, wherein the disk, on its lower side in its central part, is provided with a suction cavity, and wherein the suction holes are open to the lower side of the disk into the suction cavity.

10. (previously presented) Station according to claim 9, wherein the reaction chamber is of the type with a disk-shaped susceptor.

11. (currently amended) Station according to claim 9 wherein the arm of the robot essentially consists of a tube that also acts as a suction duct.

12. (currently amended) Station according to claim 11, wherein the arm of the robot comprises a plate, joined to one end of the tube, adapted to be applied to the tool, ~~particularly to~~

~~the plate of the tool~~, and provided with an internal duct that puts the tube of the arm in communication with the suction port of the disk.

13. (previously presented) Station according to claim 9, wherein the reaction chamber houses a support that is provided with at least one pocket for seating a wafer to be treated in the station, the pocket consisting of a first cavity and a second cavity formed within the first cavity and having a substantially flat bottom and having a shape and a size corresponding to the wafer to be treated.

14. (currently amended) Station according to claim 13, wherein the ~~dept~~ depth of the second cavity is smaller than the width of the wafer to be treated.

15. (previously presented) Station according to claim 13, wherein the overall depth of the first cavity of the second cavity is larger than the width of the wafer to be treated.

16. (previously presented) Station according to claim 9, wherein the suction system is adapted to realize a suction that depends on the wafer handling phase.

17. (previously presented) Station according to claim 16, comprising an inlet area for wafers to be treated, an outlet area for wafers already treated, and a treatment area, wherein the suction system is adapted to realize:

- a suction of a first value during a phase of transferring a wafer from the inlet area to the treatment area and during a phase of transferring a wafer from the treatment area to the outlet area,
 - a suction of a second value during a phase of picking up a wafer from the inlet area,
 - a suction of a third value during a phase of picking up a wafer from the treatment area,
- and wherein the third value is bigger than the second value and the second value is bigger than the first value.

18. (previously presented) Station according to claim 9, wherein the suction system is adapted to cause such a pressure depression in the space between the disk and the handled wafer as to cause no damage to the structure or to the surfaces of the handled wafer.
19. (cancelled).
20. (currently amended). Station according to claim ~~19~~ 20, wherein the suction system comprises a programmable Mass Flow Controller for controlling the flow of inert gas.
21. (previously presented) Tool according to claim 1, wherein the suction holes open laterally into the suction cavity.